

## II. AMENDMENTS TO THE CLAIMS:

Kindly amend claims 1-10, and add new claims 11-26, as follows.

The following claims will replace all prior versions of claims in the present application.

### Listing of Claims:

1. (Currently Amended) A method of inspecting a target by tera-hertz wave spectroscopic measurement, comprising:  
a spectroscopic measurement step of pre-measuring a first spectrum matrix [S] of tera-hertz wave absorbencies of a target component for a plurality of frequencies ranging ~~about from~~ about 1 THz to 3 THz; ~~and~~  
an object spectroscopic step of irradiating an object with tera-hertz waves of the plurality of frequencies to measure absorbencies ~~I~~ of the object; ~~and~~  
~~determining wherein~~ presence ~~or~~ and absence of the target component in the object is ~~determined on the basis of the first spectrum matrix [S] of tera-hertz wave absorbencies [S]~~  
~~of the absorbency S and a second the spectrum matrix [I] of tera-hertz wave absorbencies [I] of~~  
~~the absorbency I of the object.~~
2. (Currently Amended) A method of inspecting a target according to claim 1, further comprising a density calculation step of calculating a target density [P] on the basis of the first spectrum matrix [S] of tera-hertz wave absorbencies ~~spectrum [S] of the absorbency S~~ and the second spectrum matrix [I] of tera-hertz wave absorbencies ~~spectrum [I] of the absorbency I~~ of the object.
3. (Currently Amended) A method of inspecting a target according to claim 2, wherein the target spectroscopic step ~~comprises~~ comprising a step of two-dimensionally scanning the object with the tera-hertz waves to measure ~~the~~ a two-dimensional distribution

matrix [I] of ~~absorbency~~the absorbaney-I of penetration light,

and the density calculation step ~~comprise~~comprising a step of calculating ~~thea~~ two-dimensional distribution matrix [P] of the target density-P.

4. (Currently Amended) A method of inspecting a target according to claim 32, further comprising a step of two-dimensionally displaying the two-dimensional distribution matrix [P] of the target density-P.

5. (Currently Amended) A method of inspecting a target according to claim 2, ~~wherein~~claim 24, wherein tera-hertz waves of N number of different wavelengths are used for M number of targets, N being equal to or larger than M, wherein

when N is equal to M, the two-dimensional distribution matrix [P] of the target density-P is calculated by  $[P] = [S]^{-1}[I]$ ,

and when N is larger than M, the two-dimensional distribution matrix [P] of the target density-P is calculated by  $[I] = [S][P]$ , using a least square method.

6. (Currently Amended) An apparatus for inspecting a target using tera-hertz wave spectroscopic measurement, comprising:

a tera-hertz wave generation device-(12) that generates tera-hertz waves-(4) of a plurality of wavelengths;

a two-dimensional scan device-(18) that scans an object-(10) with the tera-hertz waves of the plurality of wavelengths;

a spectroscopic measurement device-(14) that measures a two-dimensional distribution matrix [I] of light ~~absorbency~~absorbaney-I of the object; and

a target density calculation device-(16) that calculates a two-dimensional distribution matrix [P] of a target density-P on the basis of a pre-measured spectrum matrix [S] of light ~~absorbency~~absorbaney-S of a target and the two-dimensional distribution matrix [I] of the

light ~~absorbency~~absorbancey-I.

7. (Currently Amended) An apparatus for inspecting a target by tera-hertz wave spectroscopic measurement, according to claim 6, further comprising an image display device (20) that two-dimensionally displays an image of the two-dimensional distribution matrix [P] of the target density-P.

8. (Currently Amended) A method of inspecting a target according to claim 3, further comprising a step of two-dimensionally displaying the two-dimensional distribution matrix [P] of the target density-P.

9. (Currently Amended) A method of inspecting a target according to claim 3, wherein tera-hertz waves of N number of different wavelengths are used for M number of targets, N being equal to or larger than M, wherein

when N is equal to M, the two-dimensional distribution matrix [P] of the target density-P is calculated by  $[P] = [S]^{-1}[I]$ ,

and when N is larger than M, the two-dimensional distribution matrix [P] of the target density-P is calculated by  $[I] = [S][P]$ , using a least square method.

10. (Currently Amended) A method of inspecting a target according to claim 4, wherein tera-hertz waves of N number of different wavelengths are used for M number of targets, N being equal to or larger than M, wherein

when N is equal to M, the two-dimensional distribution matrix [P] of the target density-P is calculated by  $[P] = [S]^{-1}[I]$ ,

and when N is larger than M, the two-dimensional distribution matrix [P] of the target density-P is calculated by  $[I] = [S][P]$ , using a least square method.

11. (NEW) A method of inspecting a target according to claim 1, wherein determination of the presence or absence of the target component is performed without opening the object.

12. (NEW) A method of inspecting a target by tera-hertz wave spectroscopic measurement, comprising the steps of:

pre-measuring a first spectrum matrix [S] of tera-hertz wave absorbencies of a target component for a plurality of frequencies ranging from about 1 THz to 3 THz;

irradiating an object with tera-hertz waves of the plurality of frequencies to measure absorbencies of the object; and

determining presence or absence of the target component in the object on the basis of the first spectrum matrix [S] of tera-hertz wave absorbencies and a second spectrum matrix [I] of tera-hertz wave absorbencies of the object.

13. (NEW) A method of inspecting a target according to claim 12, further comprising the steps of:

calculating a target density on the basis of the first spectrum matrix [S] of tera-hertz wave absorbencies and the second spectrum matrix [I] of tera-hertz wave absorbencies of the object, wherein the target density is a two-dimensional distribution matrix [P], and pre-measuring the first spectrum matrix [S] comprises two-dimensionally scanning the object with the tera-hertz waves to measure a two-dimensional distribution matrix [I] of absorbency of penetration light; and

two-dimensionally displaying the two-dimensional distribution matrix [P] of the target density.

14. (NEW) A method of inspecting a target according to claim 13, wherein tera-hertz waves of N number of different wavelengths are used for M number of targets, N being

equal to or larger than M, wherein

when N is equal to M, the two-dimensional distribution matrix [P] of the target density is calculated by  $[P] = [S]^{-1}[I]$ ,

and

when N is larger than M, the two-dimensional distribution matrix [P] of the target density is calculated by  $[I] = [S][P]$ , using a least square method.

15. (NEW) A method of inspecting a target according to claim 12, wherein determination of the presence or absence of the target component is performed without opening the object.

16. (NEW) An apparatus for inspecting a target by tera-hertz wave spectroscopic measurement according to claim 6, wherein tera-hertz waves of N number of different wavelengths are used for M number of targets, N being equal to or larger than M, wherein the target density calculation device calculates the two-dimensional distribution matrix [P] as follows:

when N is equal to M, the two-dimensional distribution matrix [P] of the target density is calculated by  $[P] = [S]^{-1}[I]$ ,

and

when N is larger than M, the two-dimensional distribution matrix [P] of the target density is calculated by  $[I] = [S][P]$ , using a least square method.

17. (NEW) An apparatus for inspecting a target by tera-hertz wave spectroscopic measurement according to claim 6, wherein the target density calculation device determines a

presence or absence of a target component in the object using the calculated two-dimensional distribution matrix [P] and without opening the object.

18. (NEW) A method of inspecting a target according to claim 1, wherein the object is an article that is capable of containing the target component.

19. (NEW) A method of inspecting a target according to claim 18, wherein the article is selected from the group consisting of an envelope, a parcel and a container.

20. (NEW) A method of inspecting a target according to claim 18, wherein the target component is selected from the group consisting of a drug and bio-powder.

21. (NEW) A method of inspecting a target according to claim 12, wherein the object is an article that is capable of containing the target component.

22. (NEW) A method of inspecting a target according to claim 21, wherein the article is selected from the group consisting of an envelope, a parcel and a container.

23. (NEW) A method of inspecting a target according to claim 21, wherein the target component is selected from the group consisting of a drug and bio-powder.

24. (NEW) An apparatus for inspecting a target by tera-hertz wave spectroscopic measurement according to claim 17, wherein the object is an article that is capable of containing the target component.

25. (NEW) A method of inspecting a target according to claim 24, wherein the article is selected from the group consisting of an envelope, a parcel and a container.

26. (NEW) A method of inspecting a target according to claim 24, wherein the target component is selected from the group consisting of a drug and bio-powder.